Serial No.: 10/661,919 Confirmation No.: 8345 Filed: September 12, 2003

For: FEEDTHROUGH APPARATUS WITH NOBLE METAL-COATED LEADS

### Remarks

The Office Action mailed February 5, 2009 has been received and reviewed. Claims 1, 12, 13, 22, 31, 32, 44, 55, 63, 65, and 68-72 have been amended; claims 17, 25, 39, and 60 have been canceled in this response (without prejudice); and claims 6, 15, 37, 49, 58, and 66-67 were previously canceled. As a result, claims 1-5, 7-14, 16, 18-24, 26-36, 38, 40-48, 50-57, 59, 61-65, and 68-72 remain pending. Reconsideration and withdrawal of the rejections are respectfully requested.

# **Claim Amendments**

The amendments to claims 1, 12, 13, 22, 31, 32, 44, 55, 63, 65, and 68-72 are supported by the application as filed at, e.g., Paragraphs [0026]-[0028] and Figures 1-3.

### The 35 U.S.C. §103 Rejections

### Claim 65

Although not identified as a separate rejection, it appears that, on page 11 of the February 5, 2009 Office Action, claim 65 was rejected as being unpatentable over Seifried et al. (U.S. Patent No. 5,531,003) in view of Stevenson et al. (U.S. Patent No. 6,159,560 and Dahlberg et al. (U.S. Patent No. 5,245,999). Applicants respectfully traverse this rejection and the assertions made in support of it.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. Applicants respectfully submit that the combination of Seifried et al. in view of Stevenson et al. and Dahlberg et al. does not teach or suggest each and every element of claim 65.

Claim 65 recites a medical device that includes, *inter alia*, a feedthrough assembly having a terminal extending through a ferrule. A first conductive metal coating of a refractory metal is provided on the first end of the terminal. A second conductive metal coating is provided over the

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first conductive metal coating on the first end of the terminal and at least a portion of the outer surface of the ferrule. The second conductive metal coating is a noble metal or a noble metal alloy.

Seifried et al. teaches a feedthrough assembly including a terminal that includes a "protective metal coating" to control or limit oxide growth on a terminal pin. Stevenson et al. also teaches a feedthrough assembly with a silver coating that is applied in a process that removes oxides present on the terminal pin before it is coated with oxide-resistant silver. In other words, both references teach that one oxide-resistant coating that is applied to a terminal pin (Seifried et al. and Stevenson et al.) or both the terminal pin and the ferrule (Stevenson et al.).

In support of the rejection of claim 65, however, it is asserted that "it would have been obvious to modify the system taught by Seifried (where the terminal pin has a coating applied) by applying the coating to the ferrule and the terminal pin as taught by Stevenson, that the silver coating applied as taught by Stevenson would be a second coating on top of the first coating taught by Seifried. In other words by modifying the teaching of Seifried which discloses a coating on the terminal pin, with the teachings of Stevenson, which teach applying a coating ostensibly over both the terminal pin and the ferrule, the previous coating applied by Seifried would in effect become an intermediate coating." *Office Action*, page 11, ¶ 25 (February 5, 2009). Applicants respectfully disagree with these asserted modifications.

In essence, it is asserted that one of ordinary skill in the art would apply the silver coating of Stevenson et al. over the coating of Seifried et al. on the terminal pin. These assertions are, however, insufficient to establish a *prima facie* case of obviousness because no reasoning (e.g., motivation, suggestion, desirability, etc.) has been provided to show why one of ordinary skill in the art would make the proposed modification. Both Seifried et al. and Stevenson et al. teach coatings that are provided to limit oxide growth. As a result, the coatings of Seifried et al. already address the problem that is purportedly addressed by the silver coatings of Stevenson et al. In the absence of some other stated reason that would motivate one of ordinary skill in the art

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to provide the oxide-resistant silver coating of Stevenson et al. over the oxide-resistant coating of Seifried et al., Applicants submit that a *prima facie* case of obviousness has not been established.

Applicants do note that it is alternatively asserted in the Office Action that "it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system as taught by Seifried with applying a second coating on top of the first coating since such a modification would provide predictable results of the first coating facilitating adhesion of the second coating, and for preventing oxidation on/in the ferrule." *Office Action*, page 11, ¶ 26 (February 5, 2009). Applicants respectfully submit that these assertions are also insufficient to support a *prima facie* case of obviousness.

With respect to the first assertion, i.e., that applying the silver coating of Stevenson et al. over the coatings of Seifried et al. "would provide the predictable results of the first coating facilitating adhesion of the second coating," Applicants respectfully submit that this assertion is insufficient to establish a *prima facie* case of obviousness. In particular, no support is offered to show that any such results are, in fact, predictable. If it is the intent of the Examiner to rely on some asserted inherent properties with respect to a second coating provided over a first coating, Applicants respectfully submit that the standards for a rejection based on inherency have not been met.

"The fact that a certain result or characteristic <u>may</u> occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic." M.P.E.P. § 2112(IV), p. 2100-47, 8<sup>th</sup> Ed., Rev. 6, (Sept. 2007) (emphasis in original) (*citing In re Rijckaert*, 9 F.3d 1531, 1534, 28 U.S.P.Q.2d 1955, 1957 (Fed. Cir. 1993)). "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic <u>necessarily</u> flows from the teachings of the applied prior art." *Id.* at p. 2100-48 (citing *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original)).

In the present rejection, no facts or technical reasoning have been provided to establish that a first coating such as that taught in Seifried et al. would <u>necessarily</u> facilitate adhesion of a

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silver coating as taught by Stevenson et al. As a result, this assertion cannot support a *prima* facie case of obviousness with respect to claim 65.

As for the second assertion provided in ¶ 26 on page 11 of the Office Action, i.e., that applying a second silver coating of Stevenson et al. over the coatings of Seifried et al. would prevent "oxidation on/in the ferrule," Applicants note that claim 65 recites that the second conductive metal coating on the first conductive metal coating is on the terminal. Preventing oxidation on the ferrule would not, therefore, provide any reason for one of ordinary skill in the art to provide a second coating on the terminal. Additionally, Applicants further note that the coatings of Seifried et al. already resist oxidation, thus making the addition of a second coating to resist oxidation redundant.

For at least the reasons presented herein, Applicants respectfully submit that the asserted combination of Seifried et al., Stevenson et al. and Dahlberg et al. does not establish a *prima* facie case of obviousness with respect to claim 65. Reconsideration and withdrawal of this rejection are, therefore, respectfully requested.

## Claims 1, 2, 5, 7-14, 16, 18-22, 26-36, 38, 40-45, 48, 50-57, 59, and 61-64

Pending claims 1, 2, 5, 7-14, 16, 18-22, 26-36, 38, 40-45, 48, 50-57, 59, and 61-64 were rejected under 35 U.S.C. §103(a) as being unpatentable over Seifried et al. (U.S. Patent No. 5,531,003) in view of Stevenson et al. (U.S. Patent No. 6,159,560 and Dahlberg et al. (U.S. Patent No. 5,245,999). Applicants respectfully traverse his rejection and the assertions made in support of it.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. Applicants respectfully submit that the combination of Seifried et al. in view of Stevenson et al. and Dahlberg et al. does not teach or suggest each and every element of claims 1, 2, 5, 7-14, 16-22, 25-36, 38-45, 48-57, and 59-64.

Independent claims 1, 22, and 44 (from which all of the rejected dependent claims listed above depend) all recite, *inter alia*, a feedthrough assembly having a terminal extending through

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a ferrule. A first conductive metal coating of a refractory metal is provided on the first end of the terminal. A second conductive metal coating is provided over the first conductive metal coating on the first end of the terminal and at least a portion of the outer surface of the ferrule. The second conductive metal coating is a noble metal or a noble metal alloy.

Applicants respectfully submit that the combination of Seifried et al. in view of Stevenson et al. and Dahlberg et al. does not support a *prima facie* case of obviousness with respect to pending claims 1, 2, 5, 7-14, 16, 18-22, 26-36, 38, 40-45, 48, 50-57, 59, and 61-64 at least because claims 1, 22, and 44 all recite a terminal having both a first and second coating, the first coating being a refractory metal and the second coating being a noble metal or a noble metal alloy.

In addition, Applicants respectfully traverse the assertion, made in support of this rejection, that "[i]t would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system as taught by Seifried with a second metallic coating of a noble metal, where the first coating serves as an adhesive as taught by Stevenson...." *Office Action*, page 4, ¶ 5 (February 5, 2009). First, Stevenson et al. does not teach or suggest that the silver coating is applied over a first coating. Second, Stevenson et al. does not teach or suggest that a first coating over which the silver coatings of Stevenson et al. could be applied would necessarily serve as an adhesive as asserted (*see, e.g.*, Applicants' discussion above with respect to inherency as made in connection with the rejection of claim 65).

With respect to claims 18-19, 40-41, and 61-62, Applicants traverse the assertion that titanium or niobium would be used as an oxide-resistant coating in view of the teachings of Stevenson et al. In fact, Stevenson et al. teaches that titanium "readily forms electrically insulative oxides at elevated temperatures" and "oxides of titanium are mechanically very tough, hard to remove and very stable" and that the silver coating process taught in Stevenson et al. can be used to remove the titanium oxide and provide a conductive, oxide-resistant coating in its place. *See, e.g., Stevenson et al.*, column 4, line 63 to column 5, line 7. As a result, the

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assertions made in support of the rejection of claims 18-19, 40-41 and 61-62 are not supported by Stevenson et al. and must be withdrawn.

For at least these reasons, Applicants respectfully submit that the asserted combination of Seifried et al., Stevenson et al. and Dahlberg et al. does not establish a *prima facie* case of obviousness with respect to pending claims 1, 2, 5, 7-14, 16, 18-22, 26-36, 38, 40-45, 48, 50-57, 59, and 61-64. Reconsideration and withdrawal of this rejection are, therefore, respectfully requested.

### Claims 3, 23, 46, 68, 70, and 72

Claims 3, 23, 46, 68, 70, and 72 were rejected under 35 U.S.C. §103(a) as being unpatentable over Seifried et al. (U.S. Patent No. 5,531,003) in view of Stevenson et al. (U.S. Patent No. 6,159,560) and in view of Dahlberg et al. (U.S. Patent No. 5,245,999) as applied above and further in view of Pless et al. (U.S. Patent No. 5,131,388). Applicants respectfully traverse this rejection and the assertions made in support of it.

Claims 3, 23, and 46 depend, respectively, from independent claims 1, 22, and 44. As noted above in connection with the obviousness rejection of claims 1, 22 and 44 in view of the combination of Seifried et al., Stevenson et al. and Dahlberg et al., a *prima facie* case of obviousness has not been established with respect to claims 1, 22, and 44. Applicants further submit that Pless et al. does not address the shortcomings of that primary obviousness rejection and, for at least that reason, the asserted obviousness rejection of dependent claims 3, 23, and 46 also does not meet the requirements for a *prima facie* case of obviousness.

With respect to independent claims 68, 70 and 72, the discussion provided above in connection with the asserted obviousness rejection of independent claim 65 in view of the combination of Seifried et al., Stevenson et al. and Dahlberg et al. applies equally as well to claims 68, 70 and 72. As noted above, the combination of Seifried et al., Stevenson et al. and Dahlberg et al. does not support a *prima facie* case of obviousness with respect to claim 65 and Pless et al. does not address the shortcomings of that asserted obviousness rejection. For at least

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these reasons, Applicants respectfully submit that a *prima facie* case of obviousness has not been established with respect to claims 68, 70 and 72 over the combination of Seifried et al., Stevenson et al. and Dahlberg et al.

For at least the reasons provided above, reconsideration and withdrawal of the obviousness rejection of claims 3, 23, 46, 68, 70, and 72 over the combination of Seifried et al., Stevenson et al., Dahlberg et al., and Pless et al. are respectfully requested.

# Claims 4, 24, 47, 68, 69, 71, and 72

Claims 4, 24, 47, 68, 69, 71, and 72 were rejected under 35 U.S.C. §103(a) as being unpatentable over Seifried et al. (U.S. Patent No. 5,531,003) in view of Stevenson et al. (U.S. Patent No. 6,159,560) and in view of Dahlberg et al. (U.S. Patent No. 5,245,999) as applied above and further in view of Langer (U.S. Patent No. 4,254,775). Applicants respectfully traverse this rejection and the assertions made in support of it.

Claims 4, 24, and 47 depend, respectively, from independent claims 1, 22, and 44. As noted above in connection with the obviousness rejection of claims 1, 22 and 44 in view of the combination of Seifried et al., Stevenson et al. and Dahlberg et al., a *prima facie* case of obviousness has not been established with respect to claims 1, 22, and 44. Applicants further submit that Langer does not address the shortcomings of that primary obviousness rejection and, for at least that reason, the asserted obviousness rejection of dependent claims 4, 24, and 47 also does not meet the requirements for a *prima facie* case of obviousness.

With respect to independent claims 68, 69, 71, and 72, the discussion provided above in connection with the asserted obviousness rejection of independent claim 65 in view of the combination of Seifried et al., Stevenson et al. and Dahlberg et al. applies equally as well to claims 68, 69, 71, and 72. As noted above, the combination of Seifried et al., Stevenson et al. and Dahlberg et al. does not support a *prima facie* case of obviousness with respect to claim 65 and Langer does not address the shortcomings of that asserted obviousness rejection. For at least these reasons, Applicants respectfully submit that a *prima facie* case of obviousness has not been

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established with respect to claims 68, 69, 71, and 72 over the combination of Seifried et al., Stevenson et al., Dahlberg et al. and Langer.

For at least the reasons provided above, reconsideration and withdrawal of the obviousness rejection of claims 4, 24, 47, 68, 69, 71, and 72 over the combination of Seifried et al., Stevenson et al., Dahlberg et al., and Langer are respectfully requested.

# **Summary**

It is respectfully submitted that the pending claims 1-5, 7-14, 16, 18-24, 26-36, 38, 40-48, 50-57, 59, 61-65, and 68-72 are in condition for allowance and notification to that effect is respectfully requested. The Examiner is invited to contact Applicants' Representatives at the telephone number listed below if it is believed that prosecution of this application may be assisted thereby.

Respectfully submitted

By

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CERTIFICATE UNDER 37 CFR §1.8:

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